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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,003	04/20/2001	Lakshmi Kutty Cheeniyil	70006400-1	2741

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HEWLETT-PACKARD COMPANY
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EXAMINER

TANG, KENNETH

ART UNIT PAPER NUMBER

2127

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/839,003	Applicant(s) CHEENIYIL ET AL.	
	Examiner Kenneth Tang	Art Unit 2127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-10 are presented for examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. The term "substantially" in claims 1 and 6 is a relative term which renders the claim indefinite. The term "substantially" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.
3. Claim 1 recites the limitation "said deadline" in lines 12-13. There is insufficient antecedent basis for this limitation in the claim. It is not made explicitly clear in the claim language whether "said deadline" of lines 12-13 is referring to the "expected deadline" in line 4 or if another deadline is being introduced. Therefore, it is indefinite. Claim 6 is rejected for the same reasons.
4. The term "high" in claim 6 is a relative term which renders the claim indefinite. The term "high" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tarumi (US 6,115,640).

6. As to claim 1, Tarumi teaches a method for managing a workflow process to bring execution time for said process at least closer to an expected deadline, said process including a plurality of work nodes and a set of priority levels associated with each work node (*see Abstract, col. 1, lines 48-54, col. 2, lines 18-23*), said method including the steps of:

generating for each work node a set of expected time to complete (ETC) values for each priority level, each ETC value denoting a cumulative time to complete the process including the time taken by the corresponding node to complete its activity for a selected priority level (*col. 3, lines 30-33, col. 4, lines 10-33*);

selecting for each work node a priority level that has a corresponding ETC value to meet said deadline (*col. 3, lines 30-33, col. 4, lines 38-48, and col. 5, lines 22-26*); and

executing activities associated with said work nodes in accordance with said selected priority levels to substantially meet said expected deadline (*col. 5, lines 12-26*).

Tarumi teaches altering the priority level to meet the expected deadlines but fails to explicitly teach that this is based on the ETC values that are less than or equal to a remaining time

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available. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature selecting (or having a higher priority) for an ETC value less than or equal to a remaining time available because this will ensure that the deadline will be met. If a selection was made for an ETC value greater than a remaining time available, the deadline would not be met.

7. As to claim 2, Tarumi teaches wherein each priority level is selected so that the difference between said deadline and the ETC value is a minimum (*col. 10, lines 34-37*).

8. As to claim 3, Tarumi teaches wherein said ETC values are generated from historical data collected from completed process instances during a learning phase (*col. 4, lines 34-37*).

9. As to claim 4, Tarumi fails to explicitly teach a method wherein said ETC values are generated using formula $ETC = n + 2c$ and wherein n is a statistical mean and c is a statistical standard deviation of values collected during a learning phase. However, it is well known in the art of probability theory of the elementary formula $ETC = n + 2c$ and it would be obvious to one of ordinary skill in the art to include this feature to the existing system of Tarumi in order to determine an expected time to complete value given the mean and standard deviation parameters.

10. As to claim 5, Tarumi teaches a method according to claim 1 wherein said executing is performed by at least one business object (*col. 1, lines 11-13*).

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11. As to claim 6, it is rejected for the same reasons as stated in the rejection of claim 1. In addition, Tarumi fails to explicitly teach meeting the expected deadlines with a high probability. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of meeting the expected deadlines with a high probability because it would be very desirable to stay on schedule and not miss any deadlines.

12. As to claim 7, it is rejected for the same reasons as stated in the rejection of claim 2.

13. As to claim 8, it is rejected for the same reasons as stated in the rejection of claim 3.

14. As to claim 9, it is rejected for the same reasons as stated in the rejection of claim 4.

15. As to claim 10, it is rejected for the same reasons as stated in the rejection of claim 5.

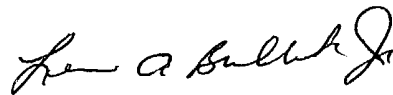
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (703) 305-5334. The examiner can normally be reached on 8:30AM - 7:00PM, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703) 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Lee A. Bullock Jr.", is positioned to the right of the main text block.

Kt
7/6/04